



# **MODIFICATION INSTRUCTIONS**

for the

## **KODAK MINILOADER 2 PLUS,**

### **MODELS STAND-ALONE, M35-M & 480RA**

Service Codes 3236, 3239 & 3240

## **MODIFICATION No. M08**

and for the

## **KODAK MINILOADER 2 (UK ONLY)**

Service Code 3213

## **MODIFICATION No. M01**

### **Type 1 Selective, see note below**

**NOTE - THIS IS ONLY A TYPE 1 SELECTIVE MODIFICATION FOR THE SPECIAL ARRANGEMENT HUMIDIFIERS SHIPPED DIRECT TO COUNTRIES BETWEEN NOVEMBER 1994 AND JANUARY 95 . OTHERWISE IT IS A TYPE 2 MODIFICATION.**

#### **PURPOSE:**

To install a HUMIDIFIER to maintain the humidity inside the MINILOADER. This will reduce problems associated with FILM curl and static artifacts which may occur at low humidity.

#### **IMPORTANT:**

Only qualified service personnel should install this modification!

#### **SERIAL NUMBERS:**

Miniloader 2	(3213)	ALL
Miniloader 2 Plus Stand-Alone	(3236)	ALL
Miniloader 2 Plus M35-M	(3239)	ALL
Miniloader 2 Plus 480RA	(3240)	ALL

#### **INSTALLATION TIME:**

Approximately 1 hour.

#### **SPECIAL TOOLS:**

HUMIDITY METER 29050132

#### **PARTS REQUIREMENT:**

For Model M35-M Modification kit 30127100  
For Models 480RA, Stand-Alone and Miniloader 2, Mod Kit 30127101  
See parts lists on page 2.

#### **PARTS AVAILABILITY:**

November 1994

## **PARTS LISTS**

<b>PART NO.</b>	<b>DESCRIPTION</b>	<b>QUANTITY</b>
30127100	MODIFICATION KIT FOR MODEL M35-M	
THE KIT CONTAINS:		
30027100	HUMIDIFIER ASSEMBLY M35-M	1
30026420	SUPPORT FOR AIR RESERVOIR ASSY.	1
30025116	SCREW, COUNTERSUNK, M4 x 8	2
30026410	SUPPORT FOR KEYPAD	1
30027133	CABLE, HUMIDIFIER SUPPLY	1
30027118	PLATE, POWER CABLE RELOCATING	1
30025825	SCREW, COUNTERSUNK, M5 x 10	2
30015565	NUT, M5	2
30027230	WIRE TIE	10
MA3239-M08	MODIFICATION INSTRUCTIONS	1
300127101	MOD KIT FOR MODELS 480RA, STAND-ALONE & MINILOADER 2	
THE KIT CONTAINS:		
30027101	HUMIDIFIER ASSY. 480RA/SA/MINI 2	1
30026420	SUPPORT FOR AIR RESERVOIR ASSY.	1
30025166	SCREW, COUNTERSUNK, M4 x 8	2
30026410	SUPPORT FOR KEYPAD	1
30027133	CABLE, HUMIDIFIER SUPPLY	1
30027230	WIRE TIE	10
MA3239-M08	MODIFICATION INSTRUCTIONS	1

### **CAUTION**



This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

### **PLEASE NOTE**

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## INTRODUCTION.

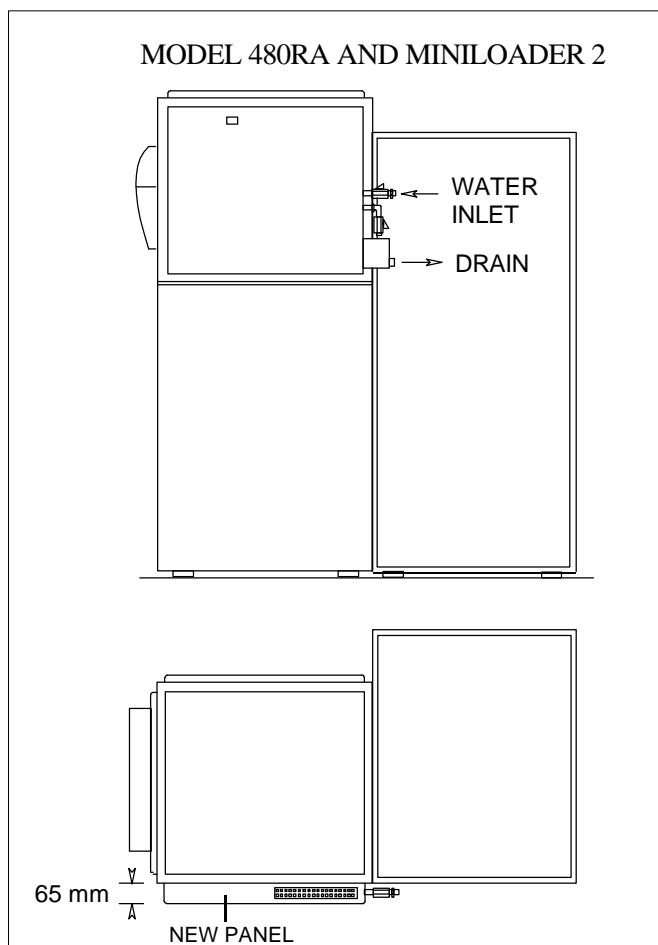
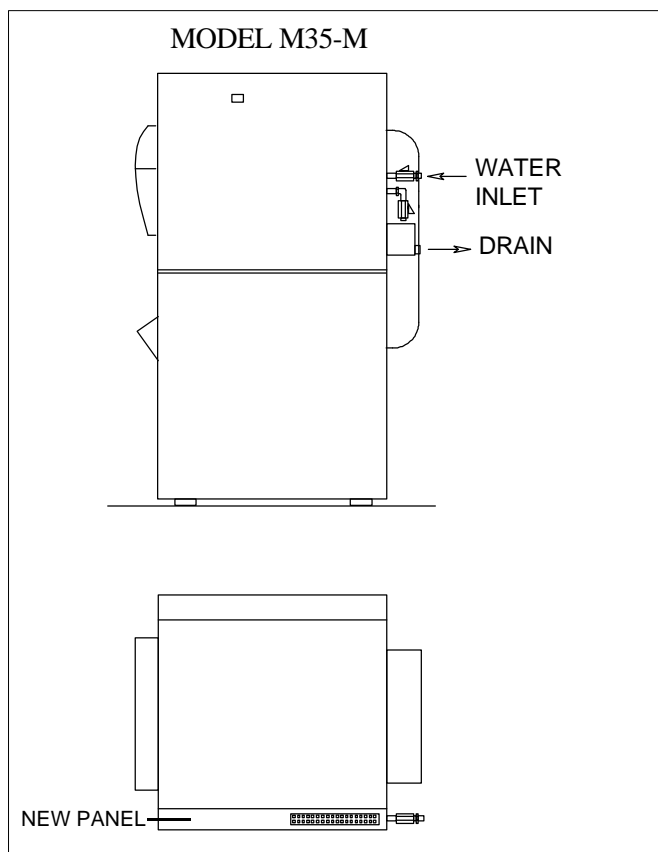
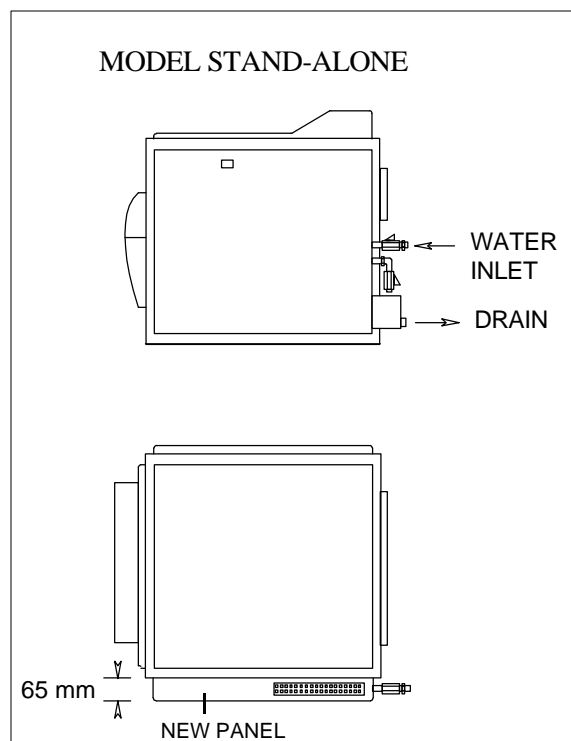
The MODIFICATION replaces the existing RIGHT HAND SIDE PANEL of the MINILOADER with a new SIDE PANEL containing a HUMIDIFIER. For the M35-M version the exterior dimensions do not change. For the versions STAND-ALONE, 480RA and MINILOADER 2, the new SIDE PANEL is 55 mm thicker. The drawings below show the outlines of the machines with the HUMIDIFIER fitted and the position of the plumbing connections. The WATER INLET and the DRAIN project to the REAR of the MINILOADER in each case.

### WATER SUPPLY

The incoming water supply specification is:-

Pressure range	0.3 to 5 Bar
Temperature	4 to 29°C
Volume approx.	1 litre/day

NOTE:- A 50 micron water filter should be provided by the customer.



## MODIFICATION INSTRUCTIONS

1. Check that all the parts are present in the MODIFICATION KIT.
2. Remove the SUPPLY MAGAZINES, and turn off the power to the MINILOADER.
3. Remove the TOP COVER, FRONT PANEL (taking care to disconnect all plugs), REAR PANEL and right hand SIDE PANEL.
4. Peel back the FOAM STRIP and remove the FAN SUPPORT and the FAN, see FIGURE 1.
5. Dismount the AIR RESERVOIR ASSEMBLY from the FAN HOUSING (discard the 2 SCREWS). Cut the wires to the FAN and discard the ASSEMBLY. Retain one of the MOUNTING SCREWS etc.

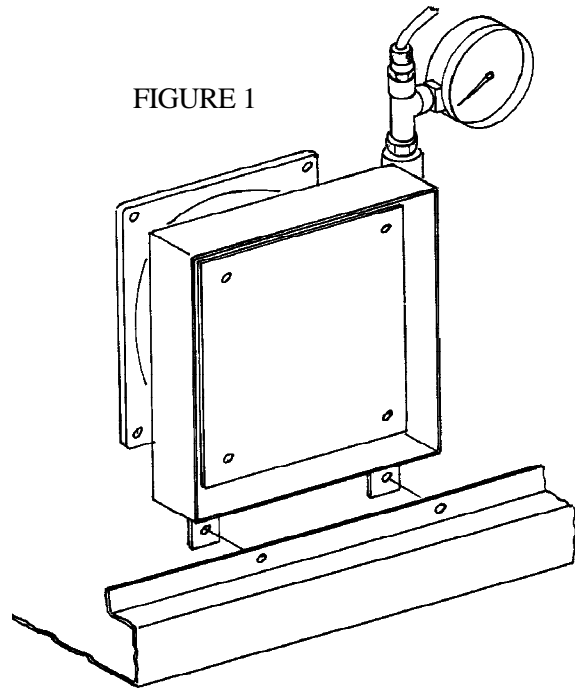


FIGURE 1

6. Fasten the new SUPPORT 30026420 to the AIR RESERVOIR ASSEMBLY using the 2 new M4 x 8 countersunk SCREWS 30025166. See FIGURE 2.
7. Remount the AIR RESERVOIR ASSEMBLY using the retained SCREW Etc. from the previous step. Replace the FOAM STRIP.

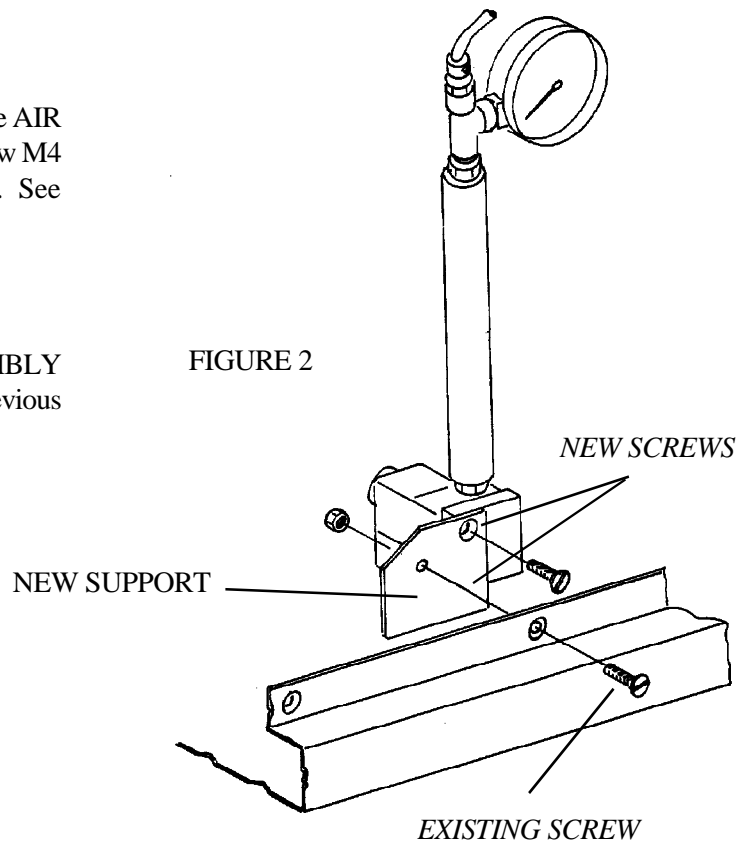
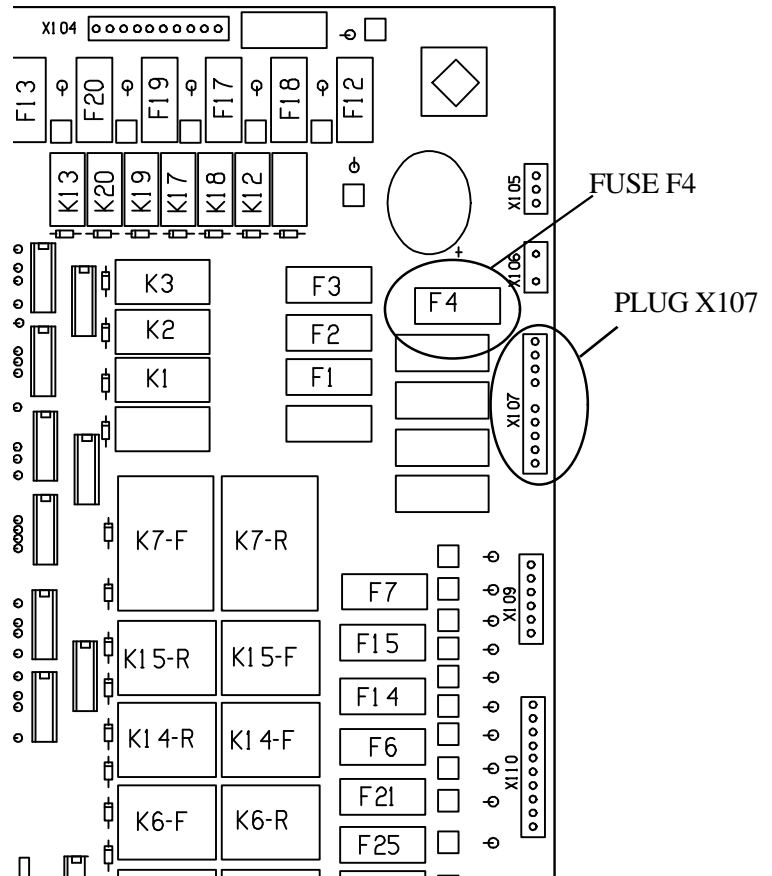


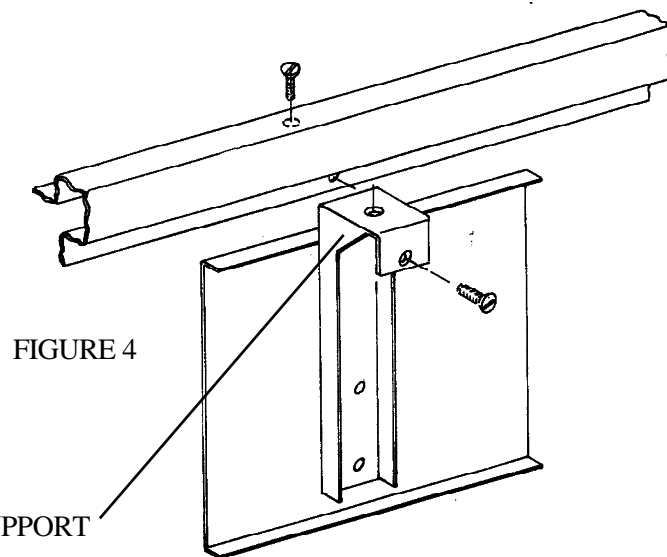
FIGURE 2

FIGURE 3

8. Disconnect the FAN SUPPLY WIRE B4 from PLUG X107-6 on PCB 301, see FIGURE 3. Insulate the end of the WIRE.
9. Disconnect the FAN SUPPLY WIRE N4 from TB1-17 on the MAIN TERMINAL BLOCK (inside the ELECTRICAL BOX). Insulate the end of the WIRE.
10. Remove FUSE F4 from PCB 301. See FIGURE 3.



11. Remove the KEYPAD SUPPORT 30020177, and replace it with the new SUPPORT 30026410 using the original mounting HARDWARE. See FIG. 4.



12. For MODEL M35-M only relocate the POWER INLET as shown, using the PLATE 30027118, SCREWS 30025825 and NUTS 30015565. See FIGURE 5.

FIGURE 5

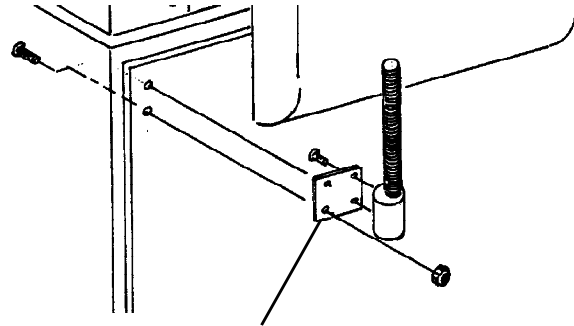


PLATE 30027118

13. Connect the new CABLE 30027133 to the 10 volt AC terminals of TRANSFORMER T2. WIRE marked 10 to TB3-1, WIRE marked 2 to TB3-2. Secure the CABLE with the WIRE TIES. Feed the CABLE under the SIDE PLATE. See FIGURE 6.

**NOTE - THE POWER LEAD MUST NOT TOUCH HIGH VOLTAGE OR MOVING PARTS.**

14. Plug the CABLE into the SOCKET on the FILTER/FUSE ASSEMBLY on the HUMIDIFIER, and fit the HUMIDIFIER to the MINILOADER.

TB3 (ON SMALL - 10 VOLT - TRANSFORMER)

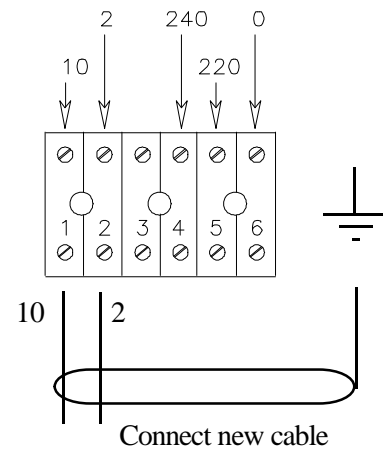
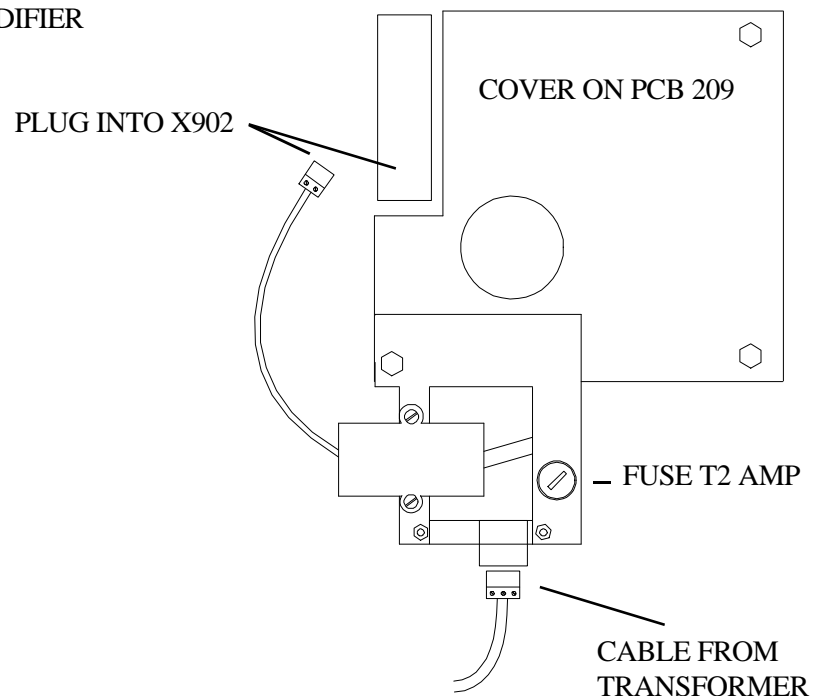
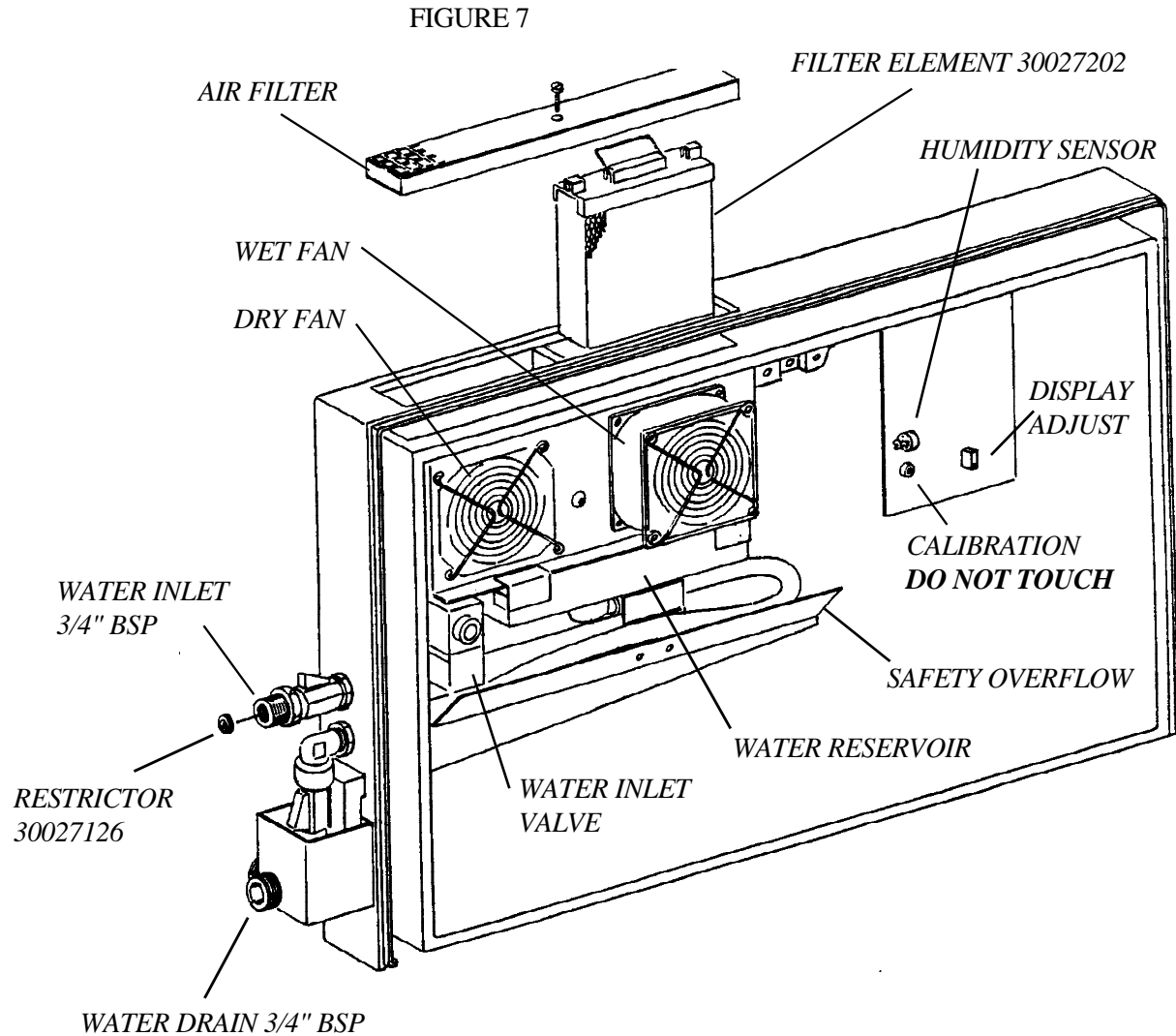


FIGURE 6

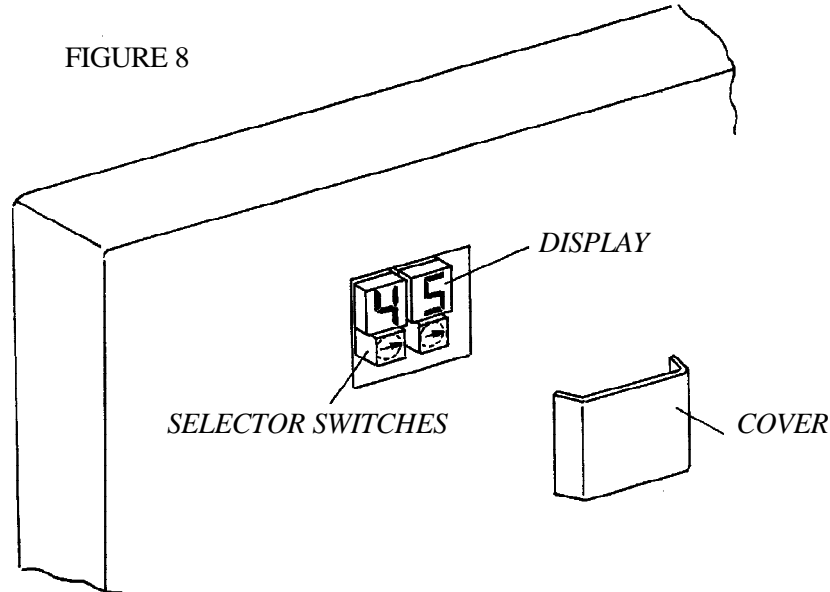


15. Connect the WATER SUPPLY using a WASHING MACHINE HOSE and the DRAIN (a HOSE CONNECTOR is supplied) to the HUMIDIFIER. Note - if using a BOTTLE to supply water to the HUMIDIFIER the RESTRICTOR 30027126 must be removed See FIGURE 7.



16. If necessary install the HUMIDIFIER FILTER.

17. Remove the clear plastic COVER and set the SELECTOR SWITCHES to the desired humidity. The recommended preset is 45% RH. Replace the COVER. See FIGURE 8.



18. Replace all the covers and power up the MINILOADER. The HUMIDIFIER should switch on automatically. If the humidity inside the MINILOADER is greater than the preset value, only the DRY FAN will run. If the humidity is below the preset value, the INLET WATER VALVE opens, the DRY FAN stops and the WET FAN starts to increase the humidity inside the MINILOADER.

IMPORTANT :- If the humidity inside the MINILOADER is different (either higher or lower) from the preset value after 10 minutes, the figures on the DISPLAY will flash. If the humidity is higher than the preset nothing can be done, but if the humidity is lower, check the water supply, FLOAT VALVE and the FILTER ELEMENT.

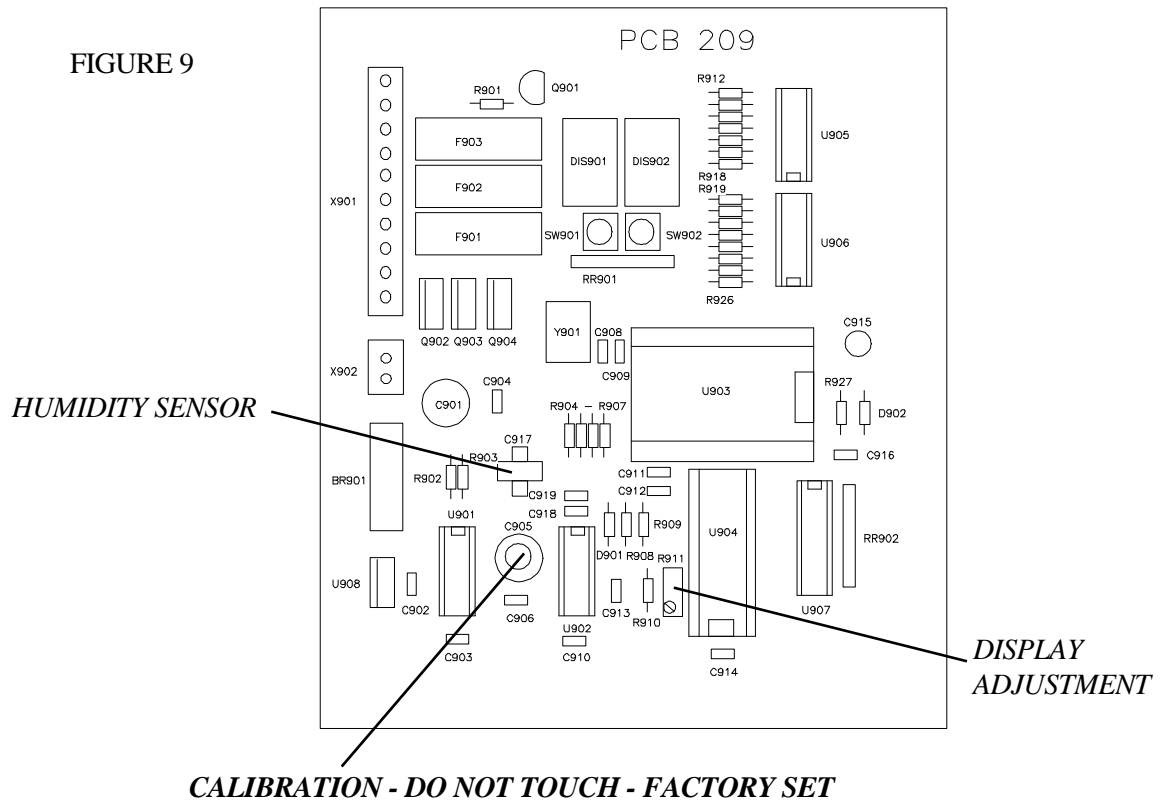
19. The calibration of the HUMIDITY SENSOR is factory set, but if a HUMIDITY METER (29050132) is available the calibration of the DISPLAY can be adjusted. After the unit has stabilised (after 30 minutes), measure the humidity inside the MINILOADER by inserting the PROBE of the HUMIDITY METER through the ENTRY SLOT. Compare the reading on the HUMIDITY METER with the HUMIDIFIER DISPLAY. If necessary the HUMIDIFIER DISPLAY reading can be adjusted by POTENTIOMETER R11 on the HUMIDIFIER PCB 209. See FIGURE 9.

IMPORTANT - DO NOT TOUCH THE VARIABLE CAPACITOR ON YOU WILL UPSET THE FACTORY SETTING.

The SERVICE DETAILS for the HUMIDIFIER including the PARTS LIST were released as PUBLICATION XP3291-2 in August 1994.



FIGURE 9



20. Circle the appropriate MODIFICATION on the MODIFICATION STICKER inside the MINILOADER. MODIFICATION M08 for MINILOADER 2 PLUS - all versions. MODIFICATION M01 for MINILOADER 2 (UK only).

FOR MINILOADER 2 PLUS

Kodak											
1	2	3	4	5	6	7	8	9	10	11	
12	13	14	15	16	17	18	19	20	21		
22	23	24	25	26	27	28	29	30	31	32	
33	34	35	36	37	38	39	40	41	42		

FOR MINILOADER 2 (UK only)

Kodak											
1	2	3	4	5	6	7	8	9	10	11	
12	13	14	15	16	17	18	19	20	21		
22	23	24	25	26	27	28	29	30	31	32	
33	34	35	36	37	38	39	40	41	42		



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